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IN THE CLAIMS:

1. (Currently Amended) A content editing apparatus that edits digital broadcast content that is composed of a plurality of data carousels for realizing pseudo-interaction, the content editing apparatus comprising:

~~reception means for receiving, unit operable to receive from an operator, modules forming each data carousel, and~~ transmission start times and transmission end times of ~~the~~ modules forming each data carousel; ~~and~~

~~module information storage unit operable to store a list of the transmission start times and the transmission end times of the modules received by the reception unit; and~~

~~data carousel definition means for~~ unit operable to

~~(a) sorting the received transmission start times and the transmission end times into a time order;~~

~~(b) defining~~ define, based on the transmission start times and the transmission end time stored by the module information storage means, a carousel time period of each of the plurality of data carousels ~~separated by the sorted transmission start times and the transmission end times; and~~

~~(c) selecting~~ select modules to be repeatedly transmitted during the carousel time period. wherein

the data carousel definition unit includes:

a time sort unit operable to sort the transmission start times and the transmission end times into a time order;

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a carousel definition unit operable to define the carousel time period of each of the plurality of data carousels separated by the sorted transmission start times and the transmission end times;

a module selection unit for selecting modules to be repeatedly transmitted during the carousel time period; and

a carousel transmission information storage unit for storing identification information of each module to be transmitted during the carousel time period.

2. (Original) The content editing apparatus of Claim 1,

wherein the reception means includes:

a time axis display unit for displaying a time axis with time divisions;

a module specification unit for specifying a module, using identification information that is composed of a module ID and a version; and

a transmission time specification unit for receiving, from the operator, specification of locations on a display displayed by the time axis display unit, so as to specify a transmission start time and a transmission end time of the specified module, the locations each corresponding to a time division on the time axis.

3. (Original) The content editing apparatus of Claim 2,

wherein the reception means further includes a bar graph display unit for displaying a bar graph that is parallel to the time axis, and

the transmission time specification unit receives an operation of the operator to specify the transmission start time and the transmission end time, the operation being (a) drag-and-drop of a start of the bar graph to the location corresponding to the transmission start time

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and (b) drag-and-drop of an end of the bar graph to the location corresponding to the transmission end time, the start of the bar graph and the end of the bar graph at an initial state respectively corresponding to a broadcast start time and a broadcast end time of the digital broadcast content.

4. (Cancelled)

5. (Currently Amended) The content editing apparatus of Claim [[4]] 1,

wherein the data carousel definition means further includes

a carousel time period display unit for displaying each carousel time period stored by the carousel transmission information storage unit, so as to be in correspondence with the time divisions on the time axis displayed by the time axis display unit.

6. (Currently Amended) The data processor of Claim [[4]] 1 further comprising:

module storage means for storing modules, identification information for identifying each module, and items of each module, and

content structure display control means for displaying a structure of the digital broadcast content in a form that can be viewed by the operator, the structure being a hierarchy including a broadcast content, data carousels, identification information for modules forming each data carousel, identification information for items of each module, in a stated order.

7. (Original) The content editing apparatus of claim 1, further comprising:

transmission bit rate reception means for receiving specification of a transmission bit rate of each data carousel from the operator;

module storage means for storing a size of each module; and

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standard response time calculation means for summing up sizes of the modules selected by the data carousel definition means to be transmitted during the carousel time period, and dividing a resulting value by the transmission bit rate for the data carousel, to obtain a standard response time for the data carousel, the standard response time being a transmission time period of one cycle of the data carousel when each module included therein is transmitted at once sequentially.

8. (Original) The content editing apparatus of Claim 7, further comprising

standard response time display means for displaying the standard response time for each data carousel calculated by the standard response time calculation means.

9. (Original) The content editing apparatus of Claim 8, further comprising:

transmission bit rate change means for receiving, from the operator, specification of a transmission bit rate for a data carousel, when the standard response time of the data carousel displayed by the response time display means needs to be changed;

standard response time re-calculation means for re-calculating the standard response time of the data carousel; and

standard response time change display means for displaying the standard response time re-calculated by the standard response time re-calculation means instead of the standard response time previously displayed.

10. (Original) The content editing apparatus of Claim 8, further comprising:

standard response time change operation means for receiving, from the operator, input of a standard response time of the data carousel, when the standard response time of the data carousel displayed by the response time display means needs to be changed;

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data transmission bit rate calculation means for dividing a total size of the data carousel by the input standard response time to obtain the transmission bit rate; and data transmission bit rate display means for displaying the calculated transmission bit rate.

11. (Currently Amended) A content editing method for editing digital broadcast content that is composed of a plurality of data carousels for realizing pseudo-interaction, the content editing method comprising:

a reception step for receiving, from an operator, modules forming each data carousel and transmission start times and transmission end times of the modules forming each data carousel; and

module information storage step of storing a list of the transmission start times and the transmission end times of the modules received by the reception unit; and

a data carousel definition step for

(a) ~~sorting the received transmission start times and the transmission end times into a time order;~~

(b) defining based on the transmission start times and the transmission end times stored in the module information storage step a carousel time period of each of the plurality of data carousels ~~separated by the sorted transmission start times and the transmission end times,~~ and

(c) selecting modules to be repeatedly transmitted during the carousel time period,

wherein

the data carousel definition step includes:

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a time sort step of sorting the transmission start times and the transmission end times into a time order;

a carousel definition step of defining the carousel time period of each of the plurality of data carousel separated by the sorted transmission start times and the transmission end times;

a module selection step of selecting modules to be repeatedly transmitted during the carousel time period; and a carousel transmission information storage step of storing identification information of each module to be transmitted during the carousel time period.

12. (Currently Amended) A computer program for making a computer execute a content editing method for editing digital broadcast content that is composed of a plurality of data carousels for realizing pseudo-interaction, the content editing method comprising:

a reception step for receiving, from an operator, modules forming each data carousel and transmission start times and transmission end times of the modules forming each data carousel; and

module information storage step of storing a list of the transmission start times and the transmission end times of the modules received by the reception unit; and

a data carousel definition step for

~~(a) sorting the received transmission start times and the transmission end times into a time order;~~

(b) defining based on the transmission start times and the transmission end times stored in the module information storage step a carousel time period of each of the

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plurality of data carousels ~~separated by the sorted transmission start times and the transmission end times~~, and

(c) selecting modules to be repeatedly transmitted during the carousel time period, wherein

the data carousel definition step includes:

a time sort step of sorting the transmission start times and the transmission end times into a time order;

a carousel definition step of defining the carousel time period of each of the plurality of data carousel separated by the sorted transmission start times and the transmission end times;

a module selection step of selecting modules to be repeatedly transmitted during the carousel time period; and a carousel transmission information storage step of storing identification information of each module to be transmitted during the carousel time period.

13. (Currently Amended) A computer-readable storage medium that can be applied to a content editing apparatus that edits digital broadcast content that is made up of a plurality of data carousels for realizing pseudo-interaction the computer-readable storage medium storing a program comprising:

a reception step for receiving, from an operator, modules forming each data carousel and transmission start times and transmission end times of the modules forming each data carousel; and

module information storage step of storing a list of the transmission start times and the transmission end times of the modules received by the reception unit; and

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a data carousel definition step for

(a) ~~sorting the received transmission start times and the transmission end times into a time order;~~

(b) defining based on the transmission start times and the transmission end times stored in the module information storage step a carousel time period of each of the plurality of data carousels ~~separated by the sorted transmission start times and the transmission end times~~, and

(c) selecting modules to be repeatedly transmitted during the carousel time period, wherein

the data carousel definition step includes:

a time sort step of sorting the transmission start times and the transmission end times into a time order;

a carousel definition step of defining the carousel time period of each of the plurality of data carousel separated by the sorted transmission start times and the transmission end times;

a module selection step of selecting modules to be repeatedly transmitted during the carousel time period; and a carousel transmission information storage step of storing identification information of each module to be transmitted during the carousel time period.

14. (Currently Amended) A content editing apparatus that edits content stored at a site on a network in a state of being available for a validity period, comprising:



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a reception step for receiving, from an operator, modules forming each data carousel and transmission start times and transmission end times of the modules forming each data carousel; and

module information storage step of storing a list of the transmission start times and the transmission end times of the modules received by the reception unit; and

a data carousel definition step for

(a) ~~sorting the received transmission start times and the transmission end times into a time order;~~

(b) defining based on the transmission start times and the transmission end times stored in the module information storage step a carousel time period of each of the plurality of data carousels ~~separated by the sorted transmission start times and the transmission end times,~~ and

(c) selecting modules to be repeatedly transmitted during the carousel time period, wherein

the data carousel definition step includes:

a time sort step of sorting the transmission start times and the transmission end times into a time order;

a carousel definition step of defining the carousel time period of each of the plurality of data carousel separated by the sorted transmission start times and the transmission end times;

a module selection step of selecting modules to be repeatedly transmitted during the carousel time period; and a carousel transmission information storage step of storing identification information of each module to be transmitted during the carousel time period.

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15. (New) A method for editing broadcast content, comprising:
- selecting a plurality of modules and entering corresponding start times and end times;
  - aggregating the start and end times;
  - sorting the aggregation into a chronological ordering;
  - defining a plurality of data carousels having start and end times that correspond with consecutive times in the chronological ordering;
  - identifying for each of the plurality of data carousels each of the modules from the plurality of modules having start and end times that define a time interval that includes the data carousels start and end time.
16. (New) The method of claim 15 further comprising displaying a name and the time interval corresponding with each of the plurality of data carousels.
17. (New) The method of claim 16 further comprising inputting a transmission bit rate for each of the plurality of data carousels.
18. (New) The method of claim 17 further comprising generating carousel information for each of the plurality of data carousels.
19. (New) The method of claim 18 further comprising determining the standard response time for each of the plurality of data carousels.